# THE OSPR NEWS

**California Office of Spill Prevention and Response**

**Winter-Spring 2006** **Issue 1**
**Vol. 11**

## Highlights

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# New CA Laws

*By Ryan Todd, OSPR Staff Counsel III*

The following are synopses of two bills passed by the State Legislature and signed by Governor Schwarzenegger in 2005, which took effect on January 1, 2006. These are only summaries; the actual text of the bills should be consulted for the full law; or call OSPR's Legal Branch.

**The Cape Mohican is a non-tank vessel from which 96,000 gallons of fuel were released in 1996. 40,000 gallons spilled into San Francisco Bay.**

## AB 752, Karnette – Non Tank Vessel Financial Responsibility

Currently a *non-tank vessel* that is required to have a contingency plan cannot enter marine waters of the State of California unless the non-tank vessel owner or operator has provided to the OSPR Administrator evidence of financial responsibility that demonstrates, to the Administrator's satisfaction, the ability to pay at least $300 million to cover damages caused by a spill. The Administrator has also been authorized to establish a lower standard of financial responsibility for specified non-tank vessels. However, this authorization was due to expire on January 1, 2006, and thus would require all non tank vessels – regardless of the volume of oil onboard – to demonstrate at least $300 million-worth of pollution coverage.

AB 752 extends indefinitely the authority of the Administrator to establish a lower standard of financial responsibility for specified non-tank vessels. See http://www.leginfo.ca.gov/pub/bill/asm/ab_0751 0800/ab_752_bill_20050830_chaptered.pdf.

## SB 771, Simitian – Ocean-going Ships

(1) Existing law prohibits a *cruise ship* (generally, a commercial vessel that has the capacity to carry 250 or more passengers for hire, with some exceptions) from conducting onboard incineration while operating within 3 miles of the California coast.

This new law prohibits *any oceangoing ship* (i.e. a private, commercial, government, or military vessel of 300 gross registered tons or more, calling on California ports or places) from conducting onboard incineration while operating within 3 miles of the California coast.

(2) Existing law regulates the release of graywater (e.g., shower, laundry, dishwater), sewage sludge (e.g., untreated body wastes from a Type III marine sanitation device), oily bilge water, hazardous waste, or "other waste" by *large passenger vessels* (i.e.: generally a vessel of 300 gross registered tons or greater engaged in the carrying of passengers for hire, with some exceptions) into the marine waters of the state and marine sanctuaries. Existing law also regulates, until January 1, 2010, the release of sewage (e.g., body waste via toilets; a.k.a. "blackwater") by *large passenger vessels* into the marine waters of the state.

This new law regulates the release of "graywater" and sewage by all *oceangoing ships*. *Oceangoing ships* may not discharge sewage sludge, oily bilge water, hazardous waste, or "other waste" into the marine waters of the state and marine sanctuaries. An *oceangoing ship* without sufficient holding capacity for graywater and sewage may discharge these substances; it must hold these substances if it has sufficient holding capacity. However, the State Water Resources Control Board (Water Board) is coordinating with U.S. EPA the regulation of sewage and sewage sludge,


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**Editor:** Dana Michaels

**Cover photo by Bruce Joab:** OSPR Environmental Scientist Kathleen Jennings and Coast Guard investigators at an oil spill in Benicia.

so that the Water Board may clearly regulate and prohibit these two discharges.

(3) The new law generally requires the owner or operator of a *large passenger vessel* or *oceangoing ship* to immediately, and no later than 24 hours after a release, notify the Water Board of the release of graywater, sewage, sewage sludge, oily bilge water, hazardous waste, or "other waste" into marine waters of the state or a marine sanctuary;

**The dredge Stuyvesant spilled over 2,000 gallons of bunker fuel just outside Humboldt Bay in 1999.**

(4) Beginning in 2006, this new law requires the master, owner, operator, agent, or person in charge of an *oceangoing ship* who has operated, or has caused to be operated, the oceangoing ship in the marine waters of the state during 2006, to provide certain information relating to ports of call and sewage, graywater, and blackwater discharge, in electronic or written form to the State Lands Commission (SLC) upon the vessel's departure from its first port or place of call in California. The new law requires the SLC to submit the reported information to the Water Board on or before February 1, 2007. The Water Board must then submit the reported information to the California Legislature on or before October 1, 2007.

(5) The California Legislature intends to ask the U.S. Congress to amend the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq) to provide California with authority similar to that granted to the State of Alaska, to regulate the release of sewage from large passenger vessels and oceangoing ships in the marine waters of the state. See http://www.leginfo.ca.gov/pub/bill/sen/sb_0751 0800/sb_771_bill_20051006_ chaptered.pdf.

The Water Board and SLC are the lead agencies for implementing SB 771. The Water Board is required to determine whether it needs prior U.S. EPA approval to regulate discharge of *sewage* and *sewage sludge*. The Dept. of Fish and Game has express authority to initiate civil actions with the Attorney General for violations of SB 771.

# Technology Workshop held in San Ramon

*Photo by Judd Muskat*

**OSPR Environmental Scientist Randy Imai**

OSPR and Chevron again joined forces to sponsor a three-day workshop to help oil spill responders utilize the latest technologies. The Technology Workshop for Oil Spill Response in the Marine Environment took place at Chevron Shipping Company's San Ramon headquarters, February 6-8, 2006.

Subjects included oil dispersants, oil slick mapping and thickness determinations using a portable multi-spectral imager, the effects of dispersed oil on wildlife, CODAR (high frequency radar) for ocean surface current field mapping, RADARSAT-1 satellite surveillance for pollution and ship detection, tracking oil at night, aerial surveillance by drones, aerial reconnaissance wildlife mapping for resources at risk, Spill View software, and more.

OSPR Environmental Scientists Walter Nordhausen and Randy Imai did presentations on dispersed oil monitoring and Shore Access software, respectively.

# Settlement funds protect Santa Clara River

## Purchase is first to utilize ARCO settlement funds from 1994 oil spill

*by Dana Michaels, OSPR Information Officer*

Representatives of OSPR and the U.S. Fish and Wildlife Service – who make up the Santa Clara River Trustee Council – have enabled the Nature Conservancy to purchase and forever protect 377 acres of riparian habitat in Ventura County. The purchase will safeguard vital habitat for a wide variety of animals and plants, including as many as 35 endangered, threatened or sensitive species. The parcel is located at the confluence of the Santa Clara River and Piru Creek, and encompasses roughly three miles of river channel.

The Santa Clara River Trustee Council was established to implement Santa Clara River restoration projects using settlement funds paid by ARCO Pipeline Company, following an oil spill that polluted 16 miles of the river. Approximately 193,494 gallons of crude oil was released when an ARCO pipeline broke in eight places, during the magnitude 6.7 Northridge earthquake on January 17, 1994.

This is the first land purchase utilizing the ARCO settlement funds. The Trustee Council has allocated a total of $4 million to the Conservancy for land acquisitions and management activities along the river. The first of several planned restoration projects, this purchase is part of an ongoing effort to protect 20 miles along the Santa Clara River. To date, the Conservancy has worked with local partners to acquire 2,218 acres – about 10 linear miles – along the river.

"It's good to see the long-term plans of the trustee agencies finally coming to fruition," said Ken Wilson, environmental scientist and trustee for OSPR. "This and future efforts by the Council and its partners, like The Nature Conservancy, will provide a natural legacy way beyond our individual lifetimes."

One of southern California's last large, free-flowing rivers, the 94-mile-long Santa Clara River and associated riparian habitats are crucial to the survival of many sensitive species of wildlife, including the unarmored three-spine stickleback, steelhead trout, and California red-legged frog. Other native species that rely on the river include the arroyo toad, southwestern pond turtle, bobcat, and many species of migratory songbirds.

"Lands along the Santa Clara River are important habitat for endangered species such as the least Bell's vireo and southwestern willow flycatcher," said Steve Thompson, manager of the U.S. Fish and Wildlife Service's California/Nevada office. "Protecting another piece of this river's ecosystem can only help these species, and many others.

The property was purchased for $575,000 from Vulcan Materials, Inc., an aggregate mining company. It was never mined. This is the Conservancy's fourth purchase from a mining company along the Santa Clara River.

"The Santa Clara River is worth more than gold for wildlife, providing water, shelter and food for numerous species of birds, mammals, fish and amphibians. This acquisition will safeguard high quality habitat at a key location on the river," said E.J. Remson, program director for The Nature Conservancy. "We're thrilled that the Santa Clara River Trustee Council made it possible to protect these wetlands."

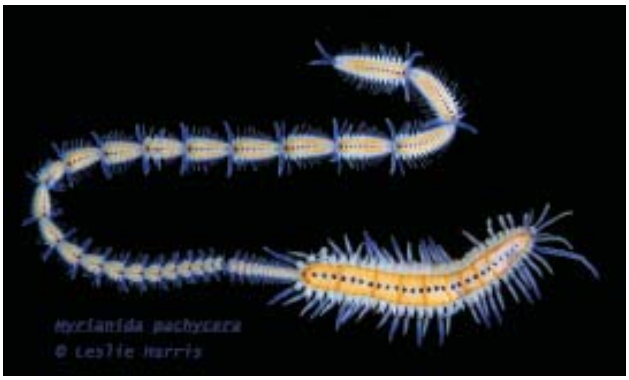
The Nature Conservancy's work on the river is part of multi-pronged conservation efforts in Ventura and Los Angeles Counties. Conservancy scientists are conducting studies on the river to help the recovery of endangered southern steelhead trout. Through their science-based planning process, the Conservancy identified key areas along the Santa Clara River, at Ormond Beach, and in the Santa Susana Mountains that must be safeguarded, linked to each other and connected to already protected lands such as Los Padres National Forest. The Conservancy is currently expanding this project area to encompass major tributaries of the Santa Clara River and reach eastward toward the headwaters.

*Photo by Ken Wilson*

**Santa Clara River spill clean-up crew**

# California under siege: coastal non-native aquatic species

*By Steve Foss, OSPR Environmental Scientist*




*© Leslie Harris, Natural History Museum of Los Angeles Co.*
**Myrianida pachycera**

They have been called aliens, exotics, non-natives, non-indigenous species, introduced species, and invasive species. Regardless of the terminology, they are animal and plant species that were introduced intentionally or accidentally by humans and are living in an environment outside their natural range. Although the term invasive is usually only applied to species that spread and cause significant environmental or human health impacts, many new species have found their way to California's coastal waters and are here to stay, with their impact yet to be determined.

Non-native aquatic animals and plants have had a profound impact on the ecology of the marine and estuarine regions of California. Non-native aquatic species (NAS) may out-compete or alter local habitats to such an extent that they make it impossible for native species to survive. Introduced species are often predators, competitors, or parasites, and some introduced species can cause or carry disease. NAS can significantly impact human health, devastate fishery and aquaculture resources, and severely disrupt habitat and ecosystem stability.

Once a non-native species has become established, control efforts can be expensive. In the Great Lakes and other North American waterways, the European Zebra Mussel, *Dreissena polymorpha,* has clogged water-intake pipelines; covered boat hulls, docks, and piers; and has altered natural ecosystems. According to the Great Lakes Science Center, the U.S. Fish and Wildlife Service estimates a $5 billion potential economic impact over the next ten years in the Great Lakes region alone.

The European green crab is an example of a non-native species that could cause substantial ecological and economic harm in California. The crab was first detected in San Francisco Bay in the late 1980s, and found in Humboldt Bay in 1995. By 1998, large numbers were found in areas where their habitat and feeding preferences overlap those of many native species, primarily the Dungeness crab. A voracious predator, green crabs have destroyed shellfish resources on the Eastern Atlantic Coast and have been listed as one of the World's 100 Worst Invasive Alien Species by the Invasive Species Specialist Group. Introductions are likely the result of transport from one part of the world to another in ships' ballast water or from crabs clinging to heavily fouled ship hulls.

Dubbed "killer algae," the invasive marine seaweed *Caulerpa taxifolia* was discovered in June 2000 in a coastal lagoon in Carlsbad, California, within San Diego County. *Caulerpa taxifolia* forms dense monocultures that prevent the establishment of native seaweeds and exclude almost all other marine life. Widely used as a decorative plant in aquaria, it was first introduced inadvertently via wastewater into the Mediterranean Sea, where it has now covered more than 32,000 acres of seabed and has harmed tourism and pleasure boating, devastated recreational diving, and heavily impacted commercial fishing.

**See Non-natives, page 6**

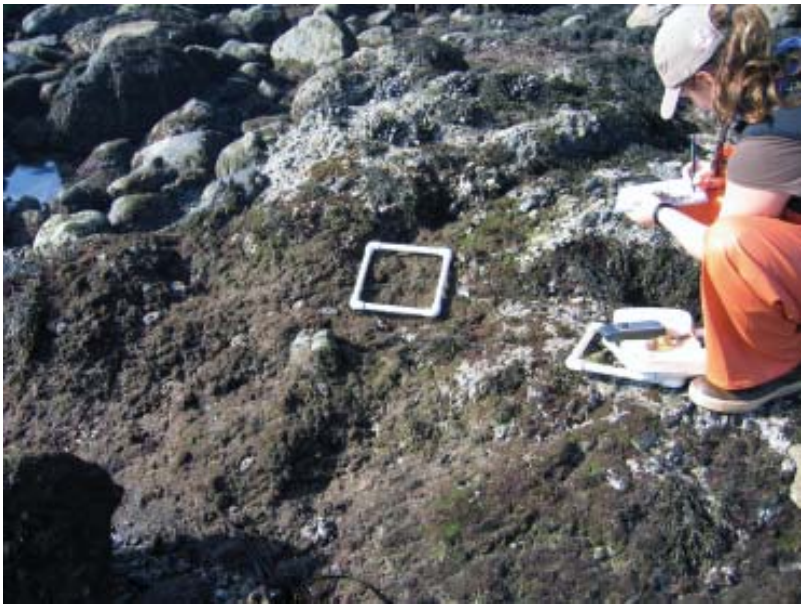
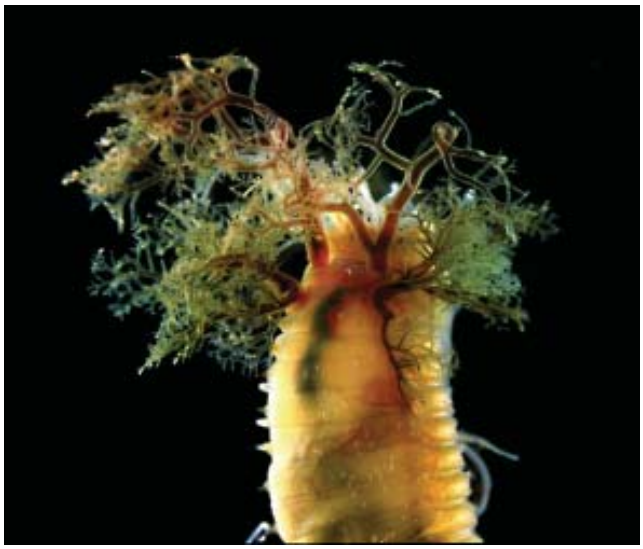


*Photo by Ashleigh Lyman, Moss Landing Marine Laboratories*
**Erin Maloney, of DFG's Moss Landing Marine Laboratories, collects samples at Dana Point.**

Non-natives, from page 5



*© Leslie Harris, Natural History Museum of Los Angeles Co.*

**Nicolea sp A**

Human actions are the primary means of non-native aquatic species introductions. Non-native species are transported to marine and estuarine waters by many pathways, but one of the main pathways for introductions in California is from the ballast water of ocean-going ships. Cargo ships take enormous quantities of water into their ballast tanks to achieve proper buoyancy, trim, and structural integrity. This water may later be discharged in another port, perhaps thousands of miles from its source, before the vessel takes on additional cargo.

Ballast water can contain numerous species in great abundance, such as plankton, fish, clams, crabs, shrimp, worms, and other marine species. Within a few hours, tens of millions of living non-native organisms may be released in foreign ballast water from a single ship. Jim Carlton, director of Mystic Seaport's Department of Maritime Studies Program, estimates that possibly more than 10,000 marine species are transported each day around the globe in the ballast water of cargo ships.

The volume of ballast water is so enormous that the number of species successfully invading new habitats via shipping pathways is growing at an ever-increasing rate. A study of introduced aquatic species in San Francisco Bay by Jim Carlton and Andy Cohen found that the average rate of invasion from 1851 to 1960 was one new species established every 55 weeks. Between 1961 and 1995 the rate of introduction increased to an estimated one new species every 14 weeks.

Under the Ballast Water Management Act of 1999, the California Legislature required the Department of Fish and Game to study the extent of non-native species introductions into the coastal waters of the state. To fulfill this requirement, OSPR initiated several baseline field surveys of ports along the California coast, and a survey of existing records of non-native organism observations.

To detect non-native species, DFG has enlisted the help of Moss Landing Marine Lab (MLML) and experts from several academic institutions. Scientists from MLML and DFG search for non-native species in a variety of habitats – beaches, bottom sediment, inter-tidal rocks, and on man-made structures, such as docks and piers. Field crews then take samples of suspected non-natives back to the laboratory for further examination by expert taxonomists.

OSPR's first survey (in 2000) targeted seven major harbor areas from Humboldt Bay to San Diego Harbor. Another survey included smaller ports and bays, from Crescent City, near the Oregon border, to Mission Bay in San Diego. Recently, studies were completed along California's outer coast and in San Francisco Bay. Future work includes re-sampling the harbors and ports originally sampled.

Surveys and literature searches revealed that all areas of the California coast have experienced some level of invasion by species not native to California or not native to the area of the coast where they have recently been discovered. Researchers have found a total of 397 non-native organisms in California's marine, estuarine, and tidal freshwater environments. An additional 339 organisms were classified as "cryptogenic," meaning that it was not obvious if they were native or introduced, but were likely introduced, as they had not been found previously.

*CDFG-Bay-Delta photo*

**European green crabs**

The most numerous group of marine non-native organisms are polychaete worms. Polychaete worms are closely related to leeches and earthworms and are often called bristleworms because each of the body segments has an upper and lower bundle of bristles on each side. There are about 5,300 species of polychaete worms worldwide, mostly residing in marine habitats. The vast majority of these worms are secretive, hiding in crevices, under rocks, or in sand or mud.

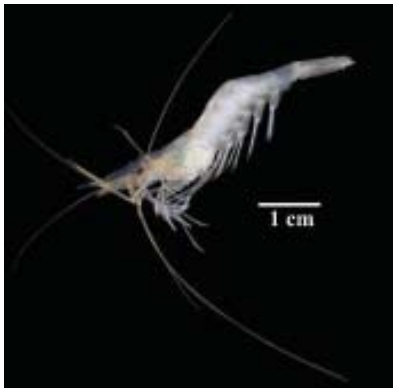
OSPR manages a database that contains the name and location of every known non-native species on the California coast. Known as CANOD (California Aquatic Non-native Organism Database), the database is available to the public on the OSPR Web site at **http://www.dfg.ca.gov/ospr/**; link to Invasive Species.

CANOD serves as a baseline for addressing the following questions:

- Which NAS have arrived in California via ballast water?
- Is the rate of new introductions increasing?
- Have ballast water regulations been successful in limiting introductions of new organisms? (long-term question)
- To what extent have humans redistributed plants and animals within California?

To answer these questions, the database includes information about the pathway of introduction (e.g. ballast water, intentional introduction), date of introduction, locations observed, and native region of each species. CANOD will be refined in the future as more surveys for non-native aquatic species are completed.

Once an introduced invasive species becomes established, it is very difficult – if not impossible – to eradicate. Unlike other forms of marine pollution, such as oil spills, where clean-up and restoration can lead to eventual recovery of the environment, the impacts of invasive marine species are usually irreversible. Therefore, prevention is the first and most cost-effective line of defense against new introductions of aquatic species.




*CDFG-OSPR file photo*

**Paelemon macrodactylus**

Currently, ballast water exchange is the only effective management tool we have to reduce the risk of ballast-caused invasion. During ballast water exchange, coastal water in the ship's tanks is replaced by open-ocean water. This process reduces the density of coastal organisms in ballast tanks that might invade a recipient port, replacing them with oceanic organisms with a lower chance of survival in nearshore waters. Current California law generally requires vessels arriving from foreign ports to exchange ballast water in mid-ocean waters before dumping ballast water in nearshore areas, or to retain all ballast water aboard the vessel.

Ships from foreign ports have been subject to ballast water regulations here in California since 2000, when the legislature passed the Ballast Water Management Act. Subsequent legislation in 2003 expanded these requirements to include ships arriving in California from U.S. ports along the Pacific Coast. This expansion of the control provisions was in response to research which has shown that there is a significant threat for intra-coastal voyages to facilitate the establishment and spread of NAS throughout a region.

Even when re-ballasting at sea can be fully implemented, it is less than 100% effective in removing organisms from ballast water. Research efforts are underway to develop alternatives to mid-ocean exchange. Options being considered include: mechanical treatment methods such as filtration and separation; physical treatment methods such as sterilization by ozone, ultra-violet light, electric currents, and heat; and chemical treatment methods, such as adding biocides to ballast water to kill organisms. However, substantial research efforts will be required to overcome the major barriers currently existing in scaling these technologies up to deal with the huge quantities of ballast water carried by large ships.

**Sargassum muticum**

*CDFG-OSPR photo*

# OSPR hosts first Clean California Conference

*Story and photos by Dana Michaels*

**Craig Ogawa of U.S. MMS**

The Office of Spill Prevention and Response (OSPR) hosted the first biennial Clean California Conference at the Best Western Golden Sails Hotel in Long Beach, this past September. Sponsored by DonJon-Smit, Resolve Marine Group, and Tidelands Oil Production Co., the conference theme was "Ready, Set, Respond!"

The conference was well-attended, with participants representing industry, government agencies, and non-profit organizations, who came from as far away as London, England.

Four panels of experts discussed subjects related to preparedness and response to oil spills, primarily in the marine environment. Then-OSPR Administrator Carl Moore opened the conference with the good news of the outstanding drop in the number and volume of marine oil spills in California, since the State's Oil Spill Prevention and Response Act and the federal Oil Pollution Act of 1990 took effect.

U.S. Coast Guard Captain Gerald Swanson, Chief of the Prevention Division, Eleventh Coast Guard District, representing the District Eleven Commander, also spoke to the 120 conference attendees. The panel discussions and presentations included:

**Carl Fritsche of Chevron**

### Effective Exercising to Improve Response Readiness

- Jerry Engelhardt, VP, Kinder Morgan Regulatory Affairs – Pipeline Operation Exercises
- Carl Fritsche (left), Emergency Response Coordinator, International Chevron Marketing
- David Sawicki, Crisis Management and Emergency Response Director, BP
- Craig Ogawa, Oil Spill Program Administrator, U.S. Minerals Management Service (above)
- Facilitator: Terry Joslin, of BlueWater Associates

**Toby Stone (right) came all the way from England.**

### Lessons Learned at Recent Past Spills

- Dan Sobieski, O'Brien's Group – *ATHOS I*
- Dr. Ed Owens, Polaris Applied Sciences, Inc. – *Selendang Ayu:* Extensive Shoreline Survey Program

**Response Technologies**

- Dr. Phillip Arms, California Maritime Academy – Pisces II Oil Spill Simulator
- Jim Grummon, Allen Instruments – Recent Advances in handheld GPS Field Data Collection and Mapping
- Rob Self, Oil Spill Response Limited – Use of Infrared Technology for Oil Spill Detection
- Randy Imai, OSPR Environmental Scientist – Geographic Information Systems, Applications in Oil Spill Response and Planning
- Facilitator: Mike Coyne, OSPR Oil Spill Prevention Specialist

**Dispersants**

- Heather Parker-Hall, Polaris Applied Sciences – USCG Rulemaking Regarding Dispersants: Proposed Revisions to the 2003 Removal Equipment and Alternative Technology Requirements for Vessel and Facility Response Plans for Oil
- Toby Stone, Maritime and Coastguard Agency, South Hampton, UK – The UK Strategy and Response to the Use of Dispersants at Sea
- Dr. Jim Payne, Payne Environmental and Dr. Walter Nordhausen, OSPR Environmental Scientist – Natural Resource Damage Assessment Perspective: Fate and Effects of Dispersed Oil
- Yvonne Addassi, OSPR Environmental Scientist – National Academy of Sciences (NAS) Report: Understanding Spill Dispersant Efficiency and Effects
- Gary Mauseth of Polaris Applied Sciences – Dispersant Use to Mitigate the Effects of Oil Spills

**Ed Owens did a presentation on the *Selendang Ayu / Alaska* oil spill clean-up**

**Jim Payne and OSPR's Yvonne Addassi**

**Phil Arms, California Maritime Academy**

OSPR's then-Deputy Administrator Lisa Curtis made closing remarks, reminding us that, no matter how much better we get, there are always opportunities to develop technological advances and new ways of operating. As she said, "The more we learn, the more we learn we have more to learn!"

OSPR staff intend to make this a biannual event, so the next Clean California Conference will be in September 2007.

# Inside OSPR

### Lisa Curtis, Acting Administrator

Following Carl Moore's retirement at the end of September, Department of Fish and Game (DFG) Director Ryan Broddrick assigned Deputy Administrator Lisa Curtis to serve as OSPR's Acting Administrator. Curtis, a long-time law enforcement officer for DFG and OSPR was previously Chief of the OSPR Enforcement Branch. She served DFG in different management capacities from 1997 to 2001, and between 1991 and 1996, was the State incident commander at moderate and large marine oil spill responses.

Lisa was a founding member of the Standardized Oil Spill Response Management System (STORMS) Task Force that created and produced a spill response field operations guide (FOG) in 1995. The FOG has since been used by numerous government agencies at all levels, and oil industry personnel.

Curtis earned her Bachelor of Science degree in Criminal Justice and a Master of Arts degree in Organizational Management. She is a recent graduate of the prestigious F.B.I. National Academy.

## Arrivals

### Michael Coyne, Oil Spill Prevention Specialist

Michael Coyne joined OSPR in September of 2004, first serving in the Marine Safety Branch's (MSB) Readiness Unit, and now in the Maritime Safety Unit. His primary duties include reviewing oil spill contingency plans and acting as OSPR liaison to the San Francisco Bay Region Harbor Safety Committee. He is also actively involved in several state maritime issues, including tank vessel/tug escort and salvage matters.

Mike earned a Bachelor of Science degree in business administration with a concentration on Intermodalism from the California Maritime Academy, in 1993. Upon graduation, he began his career as a merchant seaman and spent seven years sailing as a deck officer aboard tanker and ammunition ships. He currently holds a Chief Mate's (unlimited tonnage) license, a 1600-gross tons Master's License, and is a lieutenant commander in the U.S. Naval Reserve.

In 2000, Coyne came ashore and began his own business as a consultant to the oil and maritime industry. He monitored oil transfers between tank vessels and marine terminals for his clients, to ensure compliance with all applicable maritime regulations.

Mike, a 5th generation Californian, lives in Cordelia with his wife and two sons. He is a member of the Autism Society of America and enjoys watching and playing baseball, coaching Little League baseball teams, fishing, and gardening.

## Roy Mathur, Oil Spill Prevention Specialist

Roy M. Mathur came to OSPR's Marine Safety Branch in 2003, after spending 13 years at sea, three years ashore in various capacities, and eight years with the California State Lands Commission's Marine Facilities Division.

He started his sea-going career with the Great Eastern Shipping Company as a deck cadet, specializing in oil tankers and oil-bulk-ore carriers. He ultimately rose to the position of Master, and sailed with an unlimited and unrestricted Master's license.

In 1991, Mathur took a position as a marine surveyor/ investigator in Los Angeles, where he conducted marine, statutory, and commercial ship surveys and inspections. He investigated marine and inland accidents involving vessels, cargo and hazardous substances, and testified as an expert witness. He was also involved in formulating marine transportation itineraries and routing according to commercial cost factors.

Roy moved to Northern California in 1994 and worked with Stevedoring Services of America in Oakland, where he was in charge of loading and unloading vessels at Container Terminals and the pre-planning of shipboard cargo. Shortly after that, the State Lands Commission hired him to provide marine facility, vessel, and maritime expertise for their oil spill prevention programs. As a marine terminal specialist II, he helped formulate and update Area Plans for oil spill response. He directed field oil spill prevention programs, and ensured that oil transfer plans were properly executed. He also provided technical expertise and interpretation, and advised staff on regulatory programs to manage oil spill prevention programs.

Now, Mathur is a member of OSPR's Northern field response team, in Fairfield.

## Mark McCaleb, Oil Spill Prevention Specialist


Mark McCaleb joined OSPR's Marine Safety Branch in January 2005. In the Readiness Unit, he evaluates oil spill response organizations and conducts unannounced drills. He also reviews and revises oil spill contingency plans.

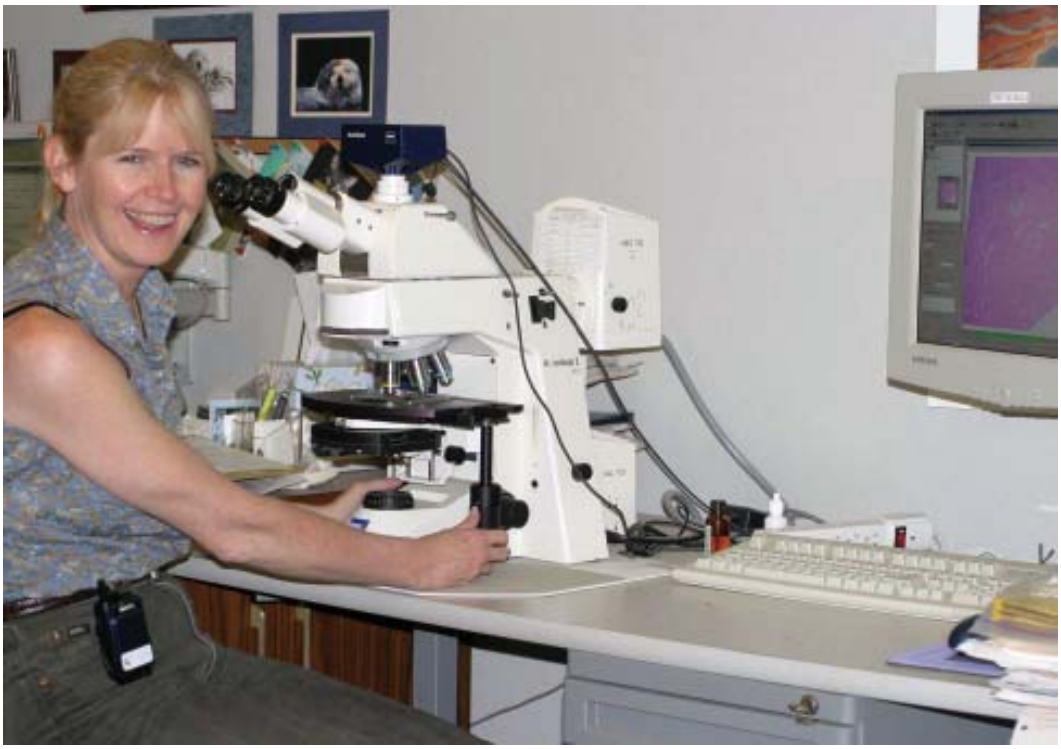
McCaleb earned his Bachelor of Science degree in business administration from San Jose State University in 1997, with a concentration in accountancy. He began his State career with the California Board of Equalization's Property Tax Department, as an associate auditor appraiser. There, he focused on pipelines, railroads, and telecommunications companies for seven years before transferring to OSPR.

Mark knew the subjects well. Before entering State service, he worked eight years for Unocal Pipeline, as well as other segments of the oil industry. He is a third-generation oil industry employee who has worked on numerous pipeline incidents; he brings a wealth of pipeline experience to OSPR.

McCaleb is a member of the Elk Grove Lions Club, where he served as President for the 2002-2003 term. He enjoys golf, fishing, and camping, but now devotes most of his time to his wife and raising their two daughters.

**See Inside OSPR, page 12**

Inside OSPR, from page 11



## Melissa Miller, Wildlife Veterinarian

Dr. Melissa Miller earned her Bachelor of Science degree in wildlife management at the University of New Hampshire, and her DVM at the University of California, Davis. She completed her Ph.D. in comparative pathology at Davis and now works for OSPR as a wildlife veterinarian and pathologist, at our Marine Wildlife Veterinary Care and Research Center in Santa Cruz.

Dr Miller examines marine wildlife that are found dead to determine the cause of death, and conducts research to help minimize impacts of terrestrial-origin pollution on wildlife health. The focus of her research concerns infectious agents and their potential impacts on marine ecosystem health. Ongoing research projects include investigations of protozoal parasites such as *Toxoplasma gondii* and *Sarcocystis neurona* that cause fatal disease in marine wildlife, terrestrial animals and humans.

Melissa is part of a large, multi-agency collaborative group that is currently investigating the potential role of marine shellfish in transmitting protozoal infections to California sea otters. They are also conducting watershed-based research on possible pathways for land-sea transfer of *T. gondii*. Other collaborative research projects include studies on the effects of domoic acid and persistent organic pollutants in otters, and long-term studies of normal and pathogenic bacterial flora of otters. She has worked for OSPR in different capacities since 1999, but joined the Department as a permanent employee in August 2004.

## Jeff Poteet, Oil Spill Prevention Specialist

Jeff Poteet came to work for OSPR's Marine Safety Branch in October of 2005. In MSB's Readiness Unit, he reviews oil spill response organization applications and helps conduct unannounced drills. He is also involved in the Sensitive Site Exercise Program.

Jeff earned his Bachelor of Arts degree in economics at California State University, Sacramento in 1992. He began his State career with the California Energy Commission in 1995 as an Energy Analyst in the Oil Unit, producing weekly petroleum reports. When promoted to Associate Energy Specialist in 1998, he analyzed oil refinery, pipeline and marine terminal data.

Jeff lives in Carmichael with his family and has two dogs. He enjoys playing sports including baseball, basketball and rugby and has a passion for music.

### Angel Raton, Jr., Southern Patrol Captain

Fish and Game Captain Angel Raton Jr. comes to OSPR with over 22 years of experience in the Department's South Coast Region, including 13 years as a lieutenant.

Capt. Raton promoted to OSPR's southern squad captain on June 1, 2005, after Steve Edinger was promoted to Assistant Chief of Enforcement. Captain Raton is actually returning to OSPR, where he served as a lieutenant for two years when OSPR was first created. He worked some of our earliest and largest spills, such as the ARCO-Four Corners/ Grapevine Creek spill of 1993.

Angel holds a Bachelor of Arts degree in biology from California State University, Long Beach, and will complement our current Enforcement Branch supervisory and management team.

## Departures

### Carlton Moore, Administrator

Carlton Moore, who has been with OSPR since its 1991 inception, has retired. During his years with OSPR, Carl has served as Administrator, interim Deputy Administrator, Special Legal Counsel to the Administrator, and supervisor of the Regulations unit.

Known as someone who can get things done, Moore was responsible for coordinating legislation affecting ships in California waters and implementation of State regulations affecting tanker safety and routing, tank vessel inspection, and tug assistance requirements, among other things. He also prepared the report to the California Legislature for the Coast Guard Vessel Traffic System program in our state.

Having attained the rank of Rear Admiral in the Coast Guard Reserve, Carl was an expert on regulations affecting shipping that were promulgated by the Coast Guard and the International Maritime Organization. For a time, DFG loaned him to the Department of Boating and Waterways, where he was interim Director from 1998 to 2001.

### Joaquin Mariante, Fish and Game Warden

After over 30 years of public service, Joaquin Mariante, OSPR's lone North Coast law enforcement officer, has retired. He is an OSPR "plank-owner," having worked for the pollution division of DFG since its first year of existence (1991).

In the past 14 years Mariante has responded to thousands of spills, large and small, from oil sheens to sewage. Notable among them were the M/V Kure and M/V Stuyvesant in Humboldt County, the San Francisco Drydock-Cape Mohican in San Francisco, SS Jacob Luckenbach in the Gulf of the Farallones National Marine Sanctuary; and overturned tank truck spills, two of which were even larger than the one that contaminated the East Walker River.

Joaquin – dedicated to protecting California's ecosystems – actually seized Canadian and Soviet vessels, making sure they paid their fines before leaving Humboldt Bay. He helped remove dangerous vessels by burning or blowing

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them up and towing them off, piece by piece, leaving nothing behind to harm wildlife. He even ordered petroleum removed by helicopter, keeping tens of thousands of gallons of it out of the environment. By supporting OSPR's cost recovery programs, he has ensured that millions of dollars spent on spill response were returned to the State Oil Spill Response Fund.

Mariante's knowledge of the marine environment and maritime activities was instrumental in the development of tug escort and ship piloting regulations and training for Humboldt Bay. He also represented the State on numerous committees, including harbor safety committees, those that developed area contingency plans, Coast Guard-sponsored spill response preparedness exercises, and he trained emergency responders.

Never content to just do "what everyone else does," Joaquin and his wife are going to enjoy their retirement on the Island of Bastimentos, in Panama. If you ever visit Bastimentos National Marine Park, you just might find Joaquin Mariante there, soaking up the tropical paradise.

## John Tarpley, Sr. Environmental Scientist (Supervisor)

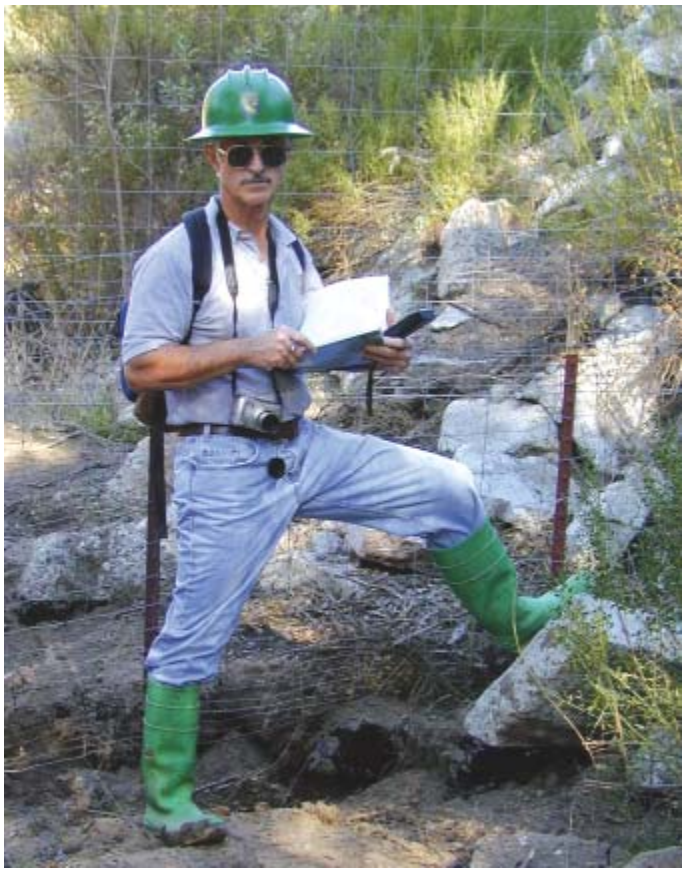
Longtime OSPR scientist John Tarpley has left OSPR's northern field response team to take the position of Regional Operations Branch Chief for the National Oceanic and Atmospheric Administration's (NOAA) Hazardous Materials Division, in Seattle.

John began his oil spill work at the granddaddy of U.S. pollution incidents: the 1989 Exxon Valdez crude oil spill in Prince William Sound, Alaska. He was hired by Exxon as a marine ecologist & consultant, to assess ecological injury to marine and nearshore terrestrial organisms and habitats, prioritize cleanup sites, and recommend specific cleanup techniques for those sites. His experiences in Alaska would soon benefit California.

John began his Fish and Game career in 1991, as a marine biologist in the Marine Resource Division's nearshore sportfish habitat enhancement program. Two years later, he transferred to OSPR's Scientific Branch, where he responded to oil spills in the San Francisco Bay area and central coast, served on trustee councils (which direct restoration activities following spills), and participated in numerous multi-agency planning groups and research projects. He worked extensively on the development of Area Contingency Plans, environmental sensitivity index maps and shoreline assessment protocols. He also trained others in various aspects of oil spill response, and published more than 15 scientific research papers while at OSPR.

In 2000, John was promoted to senior environmental scientist, and supervised the Northern scientific field response staff. Supervising complex investigations, he served as the primary DFG representative on the Cape Mohican oil spill trustee council, oversaw multi-agency analytical environmental studies, and directed some very important projects.

Interested in improving and expanding OSPR's capabilities, John developed and conducted a specialized multi-agency/industry training course for OSPR staff and other spill responders. The Environmental Response to Oil Spills (EROS) three-day training is given twice a year, and is now lead by more than 15 OSPR instructors. He also taught Shoreline Cleanup Assessment Team (SCAT), and Basic Spill Response and Sample Collection.



## Ken Wilson, Environmental Scientist

Ken Wilson has finally retired, after enjoying a distinguished career of over 40 years with DFG! One who truly cares about protecting California's natural resources, Ken praised OSPR's proactive efforts, its work ethic, and staff at all levels. He felt that the close cooperation within the Field Response Teams – comprised of OSPR's law enforcement officers, spill prevention specialists, scientists, and headquarters staff – greatly facilitated the completion of his work.

Wilson began work with the Department in 1965 as a seasonal aid, working in the shellfish studies project. His first permanent position was as a marine biologist and field representative for the Marine Region Biostatistical Unit, at Terminal Island. Beginning in 1966, he participated in oceanographic studies to select a location suitable for placing a large marine waste outfall in central California. (It was never built.)

Ken accepted a position with the DFG sea otter study project in 1968. There he designed a "better otter trap." The first time he tried it, he didn't get the otter, but *the otter got him,* leaving its "calling card" on Ken's head! A version of the "Wilson Trap" is still in use today.

In 1972, Wilson led a DFG kelp restoration project off Palos Verdes Peninsula in Los Angeles County, where project efforts contributed to the recovery of over 1100 acres of kelp forest and associated marine species. These efforts transitioned into several construction and ecological studies of man-made reefs off southern California. Those project efforts led to the construction of dozens more man-made reefs.

Ken left his diving biologist position in 1991 to work in DFG's inland Region 5. Cooperating with state and federal agencies, he prepared over 300 streambed alteration agreements for projects in Santa Barbara, Ventura, and Los Angeles Counties.

Wilson has spent the past ten years working in OSPR's Santa Barbara office, responding to hundreds of inland and marine spills in Santa Barbara and Ventura Counties. These are just the highlights of what he brought to OSPR, for the benefit of the people and wildlife of California. Ken says he is grateful for the opportunity to work with such dedicated people throughout his career and hopes to return, part-time, as a retired annuitant.

# Significant Spills Since OSPR's Inception

| Date | Location | Source | Product | Estimated Barrels |
|---|---|---|---|---|
| 4/1/05 | Donner Summit | Kinder Morgan pipeline | fuel oils | unknown |
| 3/23/05 | Pyramid Lake | Pacific Energy pipeline | crude oil | 3,000 |
| 4/17/04 | Suisun Marsh | Kinder Morgan pipeline | diesel fuel | >2,023 |
| 11/24/01 | Bolinas to Carmel | SS Jacob Luckenbach | bunker fuel | unknown |
| 12/30/00 | East Walker River | tank truck accident | #6 fuel oil | 86 |
| 2/28/00 | Ventura County | tank truck accident | crude oil | 143 |
| 9/6/99 | Eureka | M/V Stuyvesant | bunker fuel | 48 |
| 11/10/98 | Port of Long Beach | M/T Neapolis | crude oil | 150 |
| 9/26/98 | Half Moon Bay | M/V Command | bunker fuel | 72 |
| 2/14/98 | Ventura | Texaco pipeline | crude oil | 200 |
| 1/24/98 | Bardsdale | Torch pipeline | crude oil | 500 |
| 11/5/97 | Eureka | M/V Kure | bunker fuel | 108 |
| 9/28/97 | Santa Barbara Channel | Torch pipeline | crude oil | 163 |
| 3/1/97 | Donner Summit | SFPP pipeline | gas, diesel, jet | unknown |
| 2/26/97 | Norden | UPRR transfer pipe | red diesel | 405 |
| 10/28/96 | San Francisco | Cape Mohican | bunker fuel | 200 |
| 3/11/95 | Arroyo Passejero | Chevron pipeline | crude oil | 6,000 |
| 12/22/94 | San Diego River | SFPP oil-water separator | jet aviation fuel | 1,000 |
| 1/27/94 | Martinez | Shell pipeline | diesel fuel | 1,200 |
| 1/17/94 | Santa Clara River | ARCO pipeline | crude oil | 4,607 |
| 12/25/93 | McGrath Lake | Berry Petroleum pipeline | crude oil | 2,000 |
| 4/6/93 | Grapevine Creek | ARCO Four Corners pipeline | crude oil | 6,200 |
| 8/3/92 | Avila Beach | Unocal tank Farm | crude oil | 2,100 |
| 1992 | Guadalupe Beach | Unocal pipelines | diluent | 120,000-476,000 |
| 3/16/91 | El Segundo | Chevron pipeline | crude oil | 477 |
| 1/31/91 | Santa Clara River | Mobil pipeline | crude oil | 1,000 |
| 1/8/91 | Los Angeles Harbor | M/V Sammi Superstar | bunker fuel | 308 |

*One barrel = 42 gallons.*

Alternate communication format is available upon request. If reasonable accommodation is needed call Mr. Robert Hughes at 916-445-9338, or the California Relay (Telephone) Service for the deaf or hearing-impaired from TDD phones at 800-735-2929.

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